EVOLUTION AND THE THEORY OF GAMES

Exercises 25-4-2013

28. (4 points) In the section *iterated prisoners dilemma with mistakes* (see Lecture notes) we calculate the matrix of the graph A_ε in the case TFT $\times$ TFT (the first example). Calculate the equivalent matrix for the second example with GTFT $\times$ TFT, i.e. the matrix $A_{\varepsilon,\gamma}$ where γ represents the probability that a GTFT player forgives a defection of the opponent.

29. (8 points) In the lecture notes we present the game Beer & Quiche. Show that $(\sigma(t_w), \sigma(t_k)) = (b, b)$ is part of a PBNE.

30. (6 points) In the lecture notes we present the game Beer & Quiche. Show that $(\sigma(t_w), \sigma(t_k)) = (b, q)$ is not part of a PBNE.

31. (6 points) In the lecture notes we present the game Beer & Quiche. If we modify the payoffs slightly (see Figure 1), show that $(\sigma(t_w), \sigma(t_k)) = (q, b)$ is part of a PBNE.
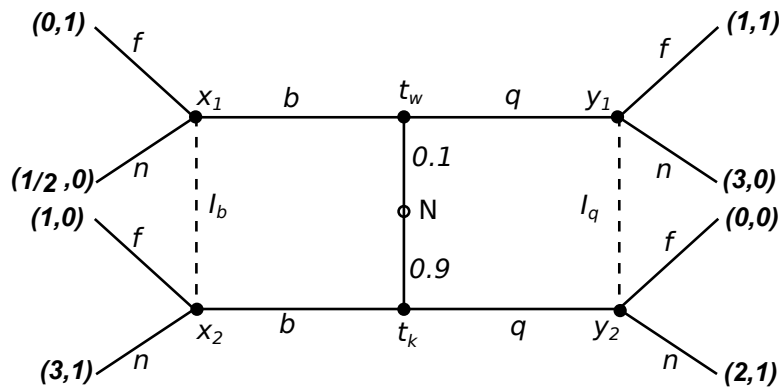

FIGURE 1.